

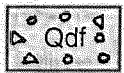
# RECONNAISSANCE GEOLOGY OF CEMENT and MINERAL CREEK USGS STREAM-TRACER TRANSECTS

by  
B.K Stover  
Colorado Division of Minerals and Geology

## Map Units

### SURFICIAL UNITS

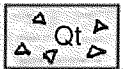
#### HOLOCENE and PLEISTOCENE



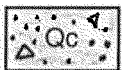
Debris Fan Deposits (Qaf: alluvial fan deposits)



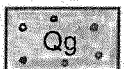
Alluvium (Qac: alluvium and colluvium)



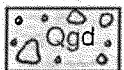
Talus Deposits



Colluvium and slopewash



Upland or Terrace Gravel



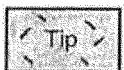
Glacial Drift (ice contact deposits)

### BEDROCK UNITS

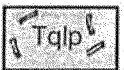
#### TERTIARY ROCKS



Intrusive Rhyolite



Intrusive Porphyry, similar to Sultan Mtn. Intrusive



Intrusive quartz-latite porphyry

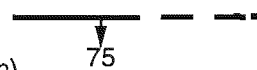


Dacite and Rhyodacite of Burns fm. (vcgl: conglomerate and breccia units)

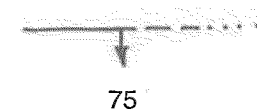
## Explanation of Symbols



CONTACT, dashed where approximately located, dotted where concealed



FAULT, dashed where approximately located, dotted where concealed, arrows show dip



MINERALIZED FAULT (vein), dashed where approximately located, dotted where concealed, arrows show dip

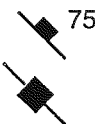


SULFIDE-PYRITE ALTERATION ZONE



STRIKE and DIP of COMPOSITIONAL LAYERING

Inclined



STRIKE and DIP of JOINTS

Inclined



Vertical



MINE SHAFT



CLAIM CORNER



Brecciated or sheared rock



Ferricrete Zones

### SPECIAL NOTE:

Geology was mapped during single-pass field traverses along transects of streams, stationed approximately to USGS WRD in-stream ionic tracer study sampling locations. NOT TO SCALE. Mapping should be considered as preliminary reconnaissance-level sketch mapping. Strike and dip of all structures was measured in the field, and is plotted accurately.

Study Completed for:  
Animas River Stakeholders Group  
September, 1999

①

ROSS BASIN  
AREA

CEMENT CREEK RECON.

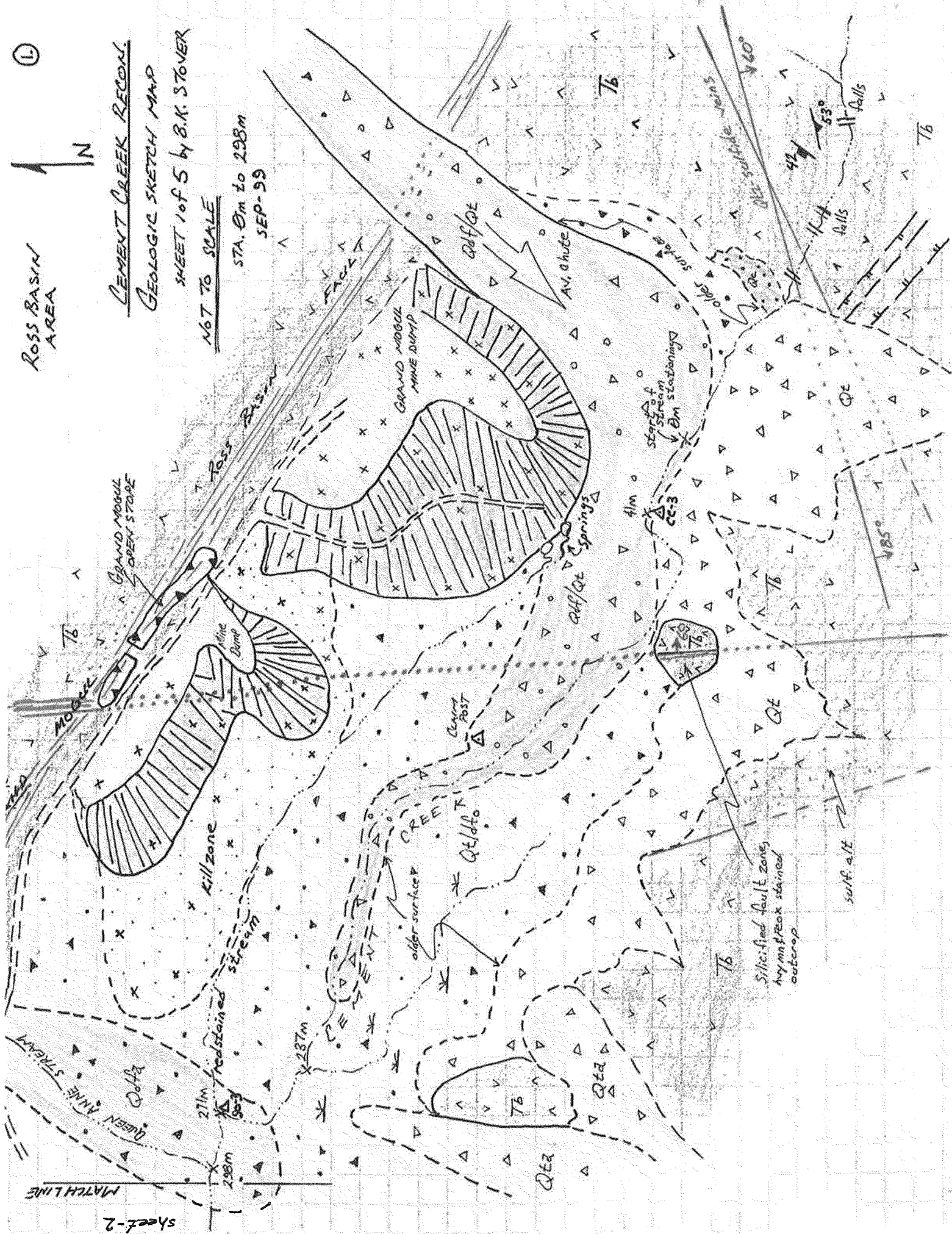
GEOLOGIC SKETCH MAP

SHEET 1 of 5 by B.K. STOVER

NOT TO SCALE

STA. 0m to 298m

SEP-99



2.

CEMENT CREEK RECON  
GEOLOGIC SKETCH MAP

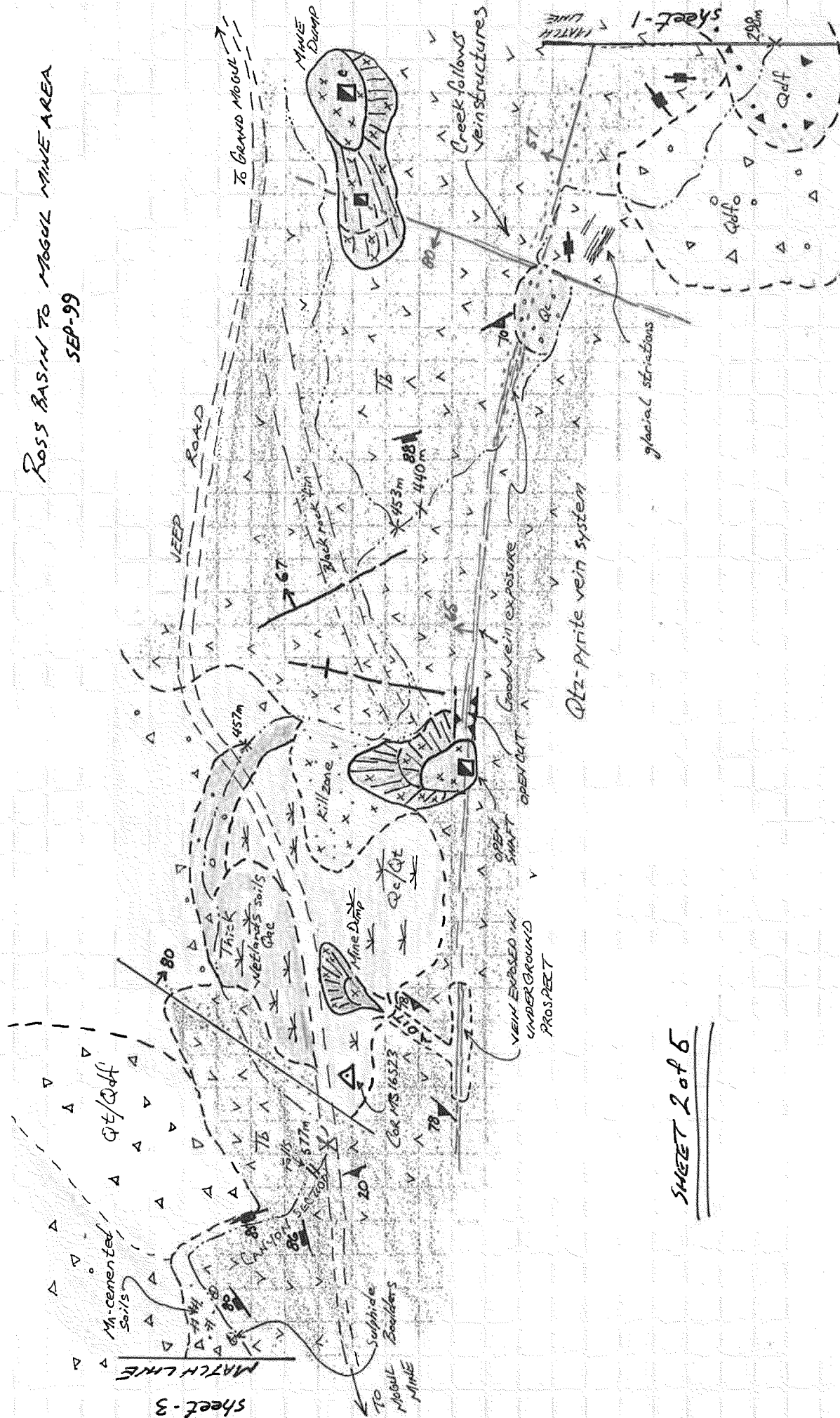
SHEET 2 OF 5 by B.K. STOVER

N.T.S.

STA. 298m to ~590m

ROSS BASIN TO MAGGUL MINE AREA

SEP-99



SHEET 2 of 5

③

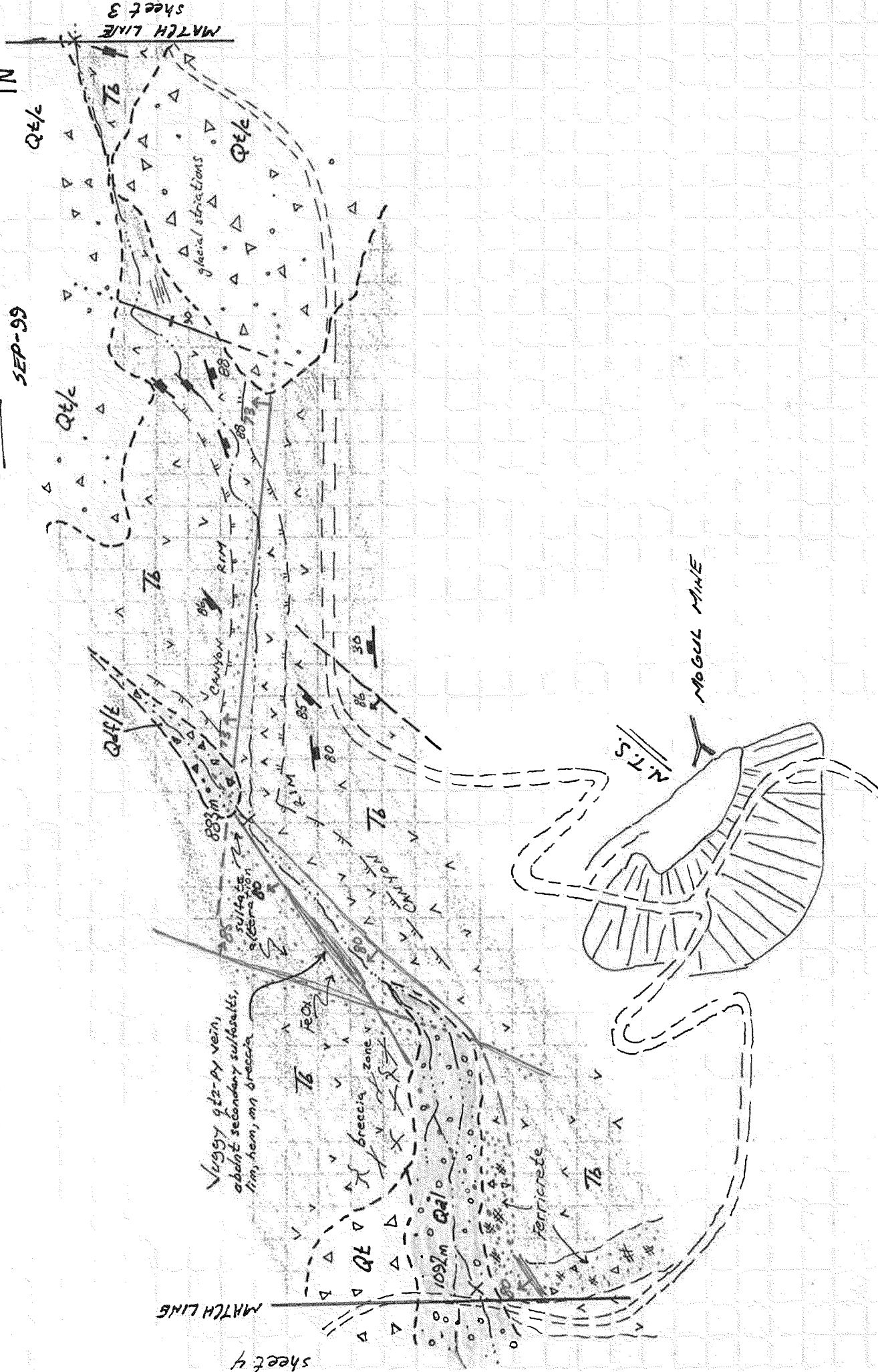
CEMENT CREEK RECON.  
GEOLOGIC SKETCH MAP

SHEET 3 OF 5 by B.K. STOVER

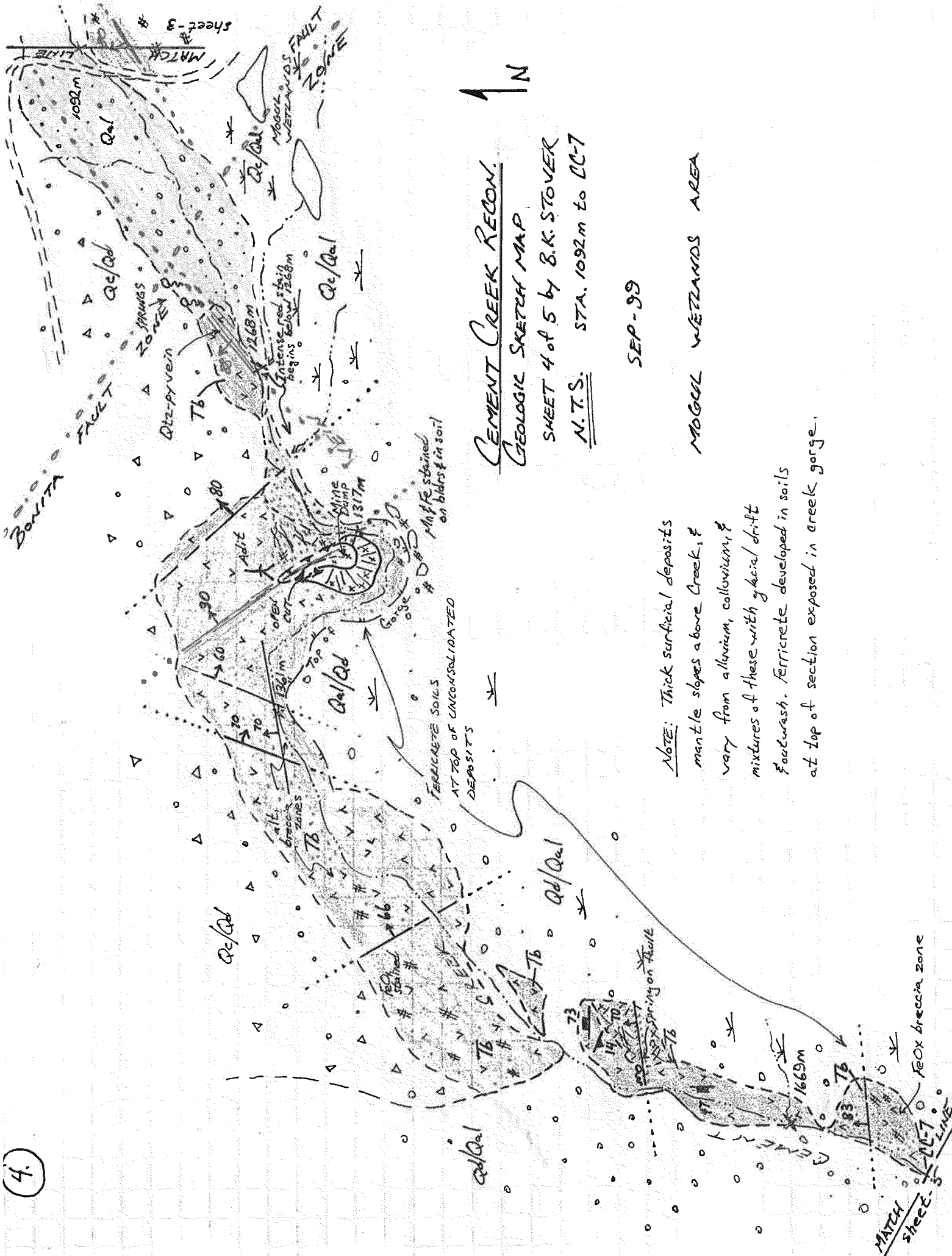
N.T.S. STA. ~590m to 1092m

SEP-99

MOGUL MINE AREA



4.



CEMENT CREEK RECON.  
GEOLOGIC SKETCH MAP

N.T.S. STA. 1092m to CC-7  
SHEET 4 of 5 by B.K. STOVER

66-275

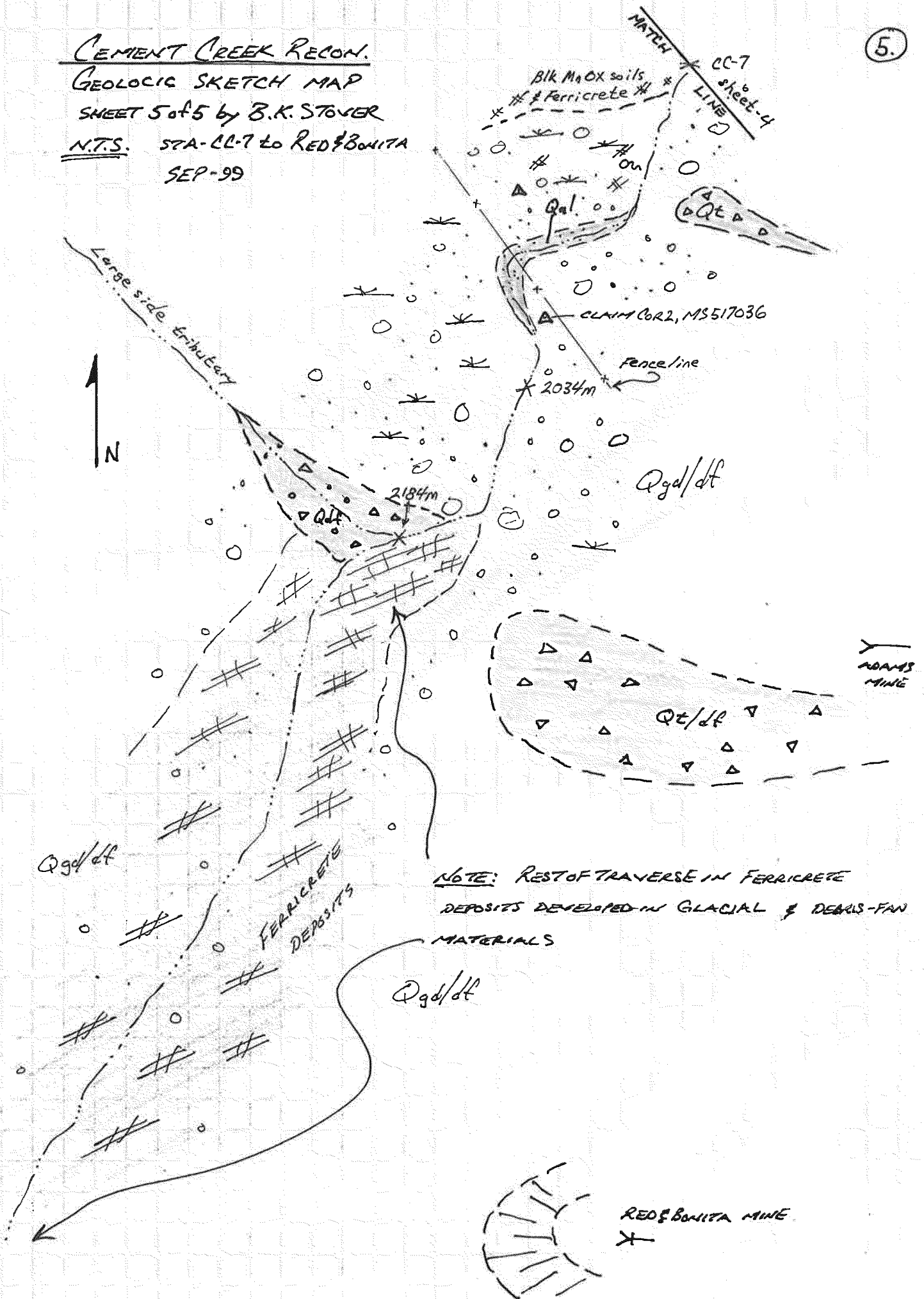
MOGUL WETLANDS AREA

NOTE: Thick surficial deposits  
mantle slopes above Creek, &  
vary from alluvium, colluvium, &  
mixtures of these with glacial drift  
& outwash. Ferricrete developed in soils  
at top of section exposed in creek gorge.



CEMENT CREEK RECON.  
GEOLOGIC SKETCH MAP  
 SHEET 5 of 5 by B.K. STOVER  
N.T.S. STA-CC-7 to RED & BONITA  
 SEP-99

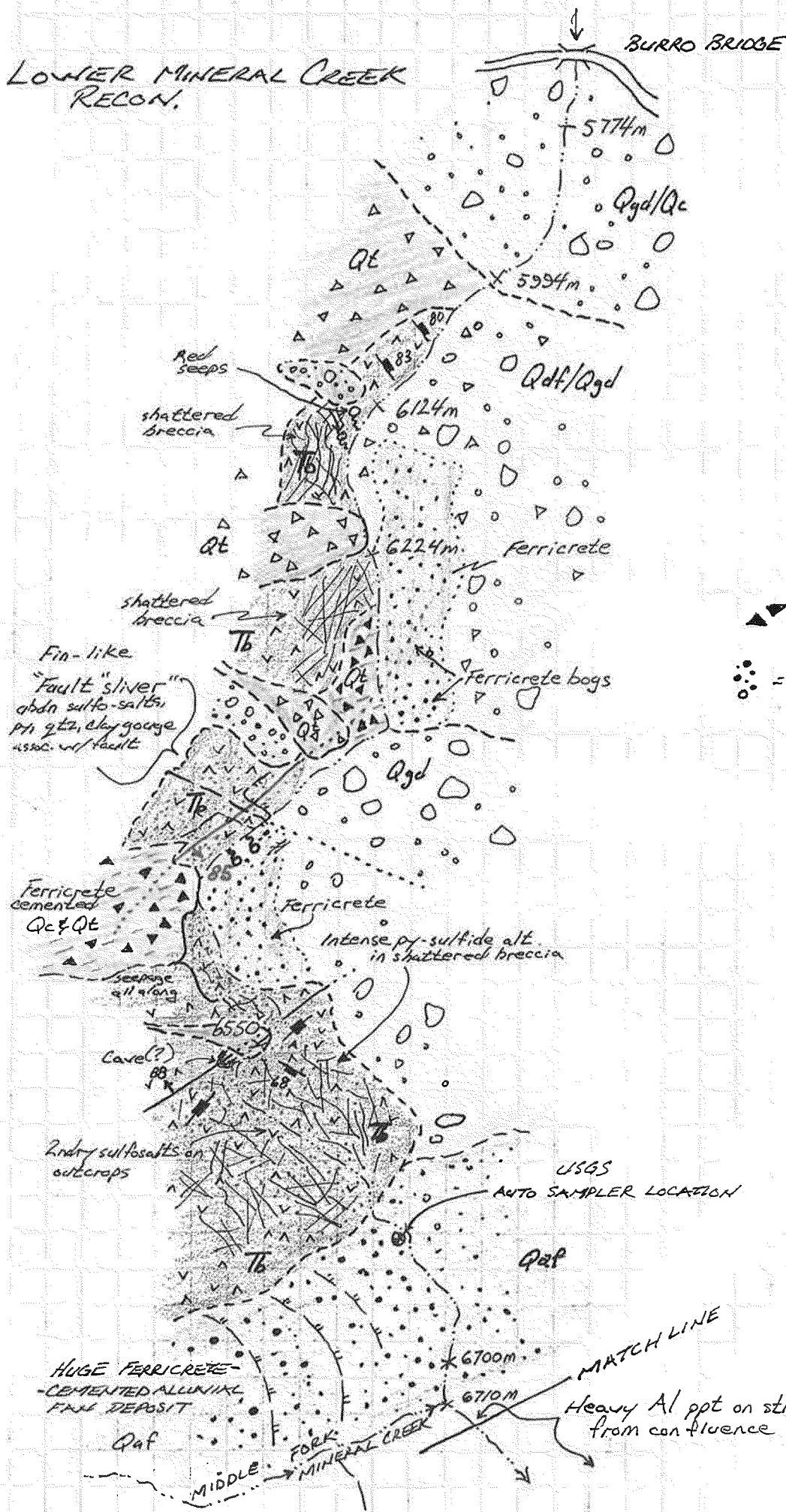
(5.)



MINERAL CREEK

1.

# LOWER MINERAL CREEK RECON.



## LOWER MINERAL CREEK GEOLOGIC SKETCH MAP

SHEET 1 of 4 by B.K. STOVER

CDMG SEP-99

N.T.S. STA. 5774m  
to  
6710m



▲ = Ferricrete cemented talus

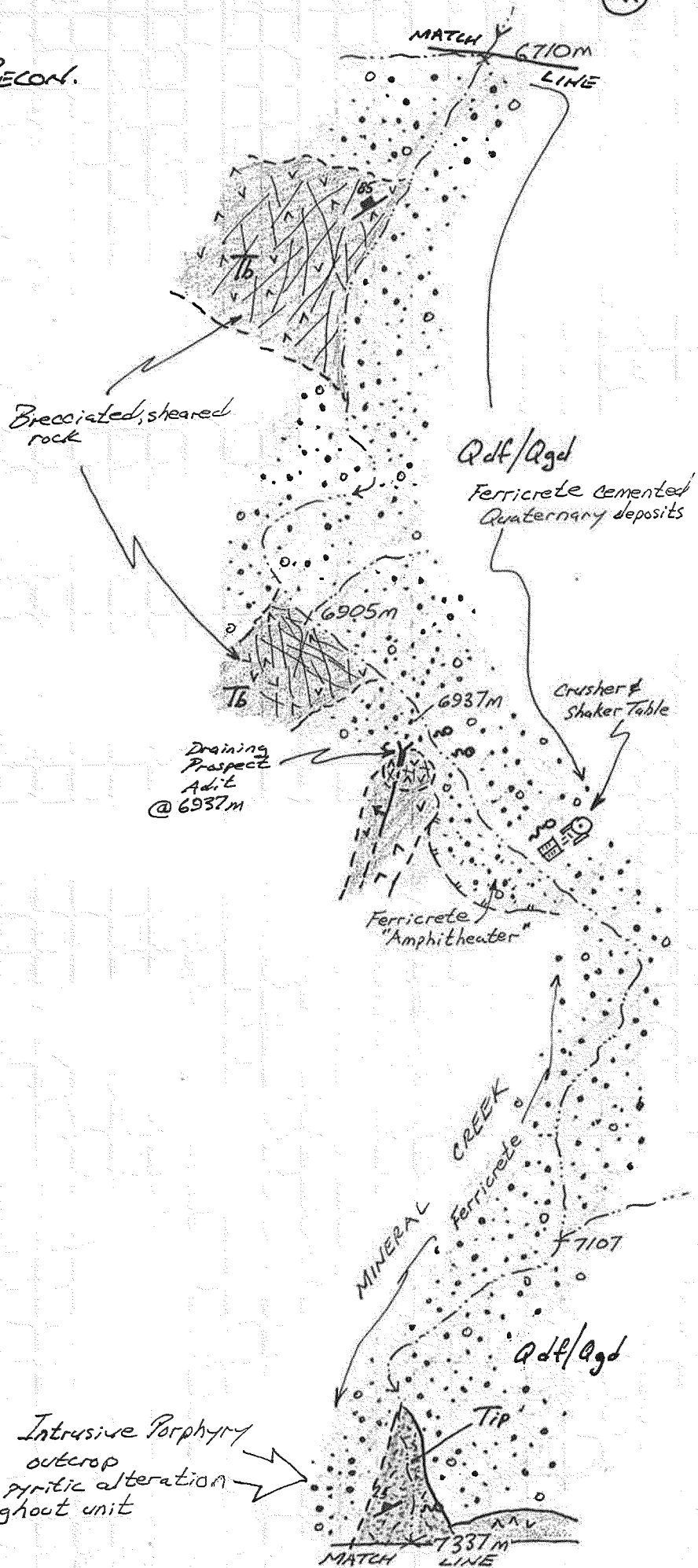
● = Ferricrete cemented alluvial & colluvial deposits

BURRO BRIDGE to  
MIDDLE FORK

SHEET 1 of 4

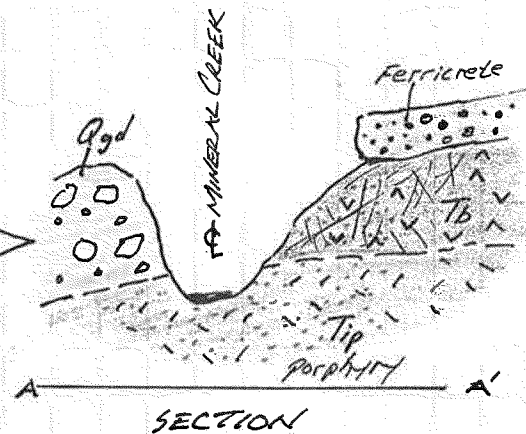
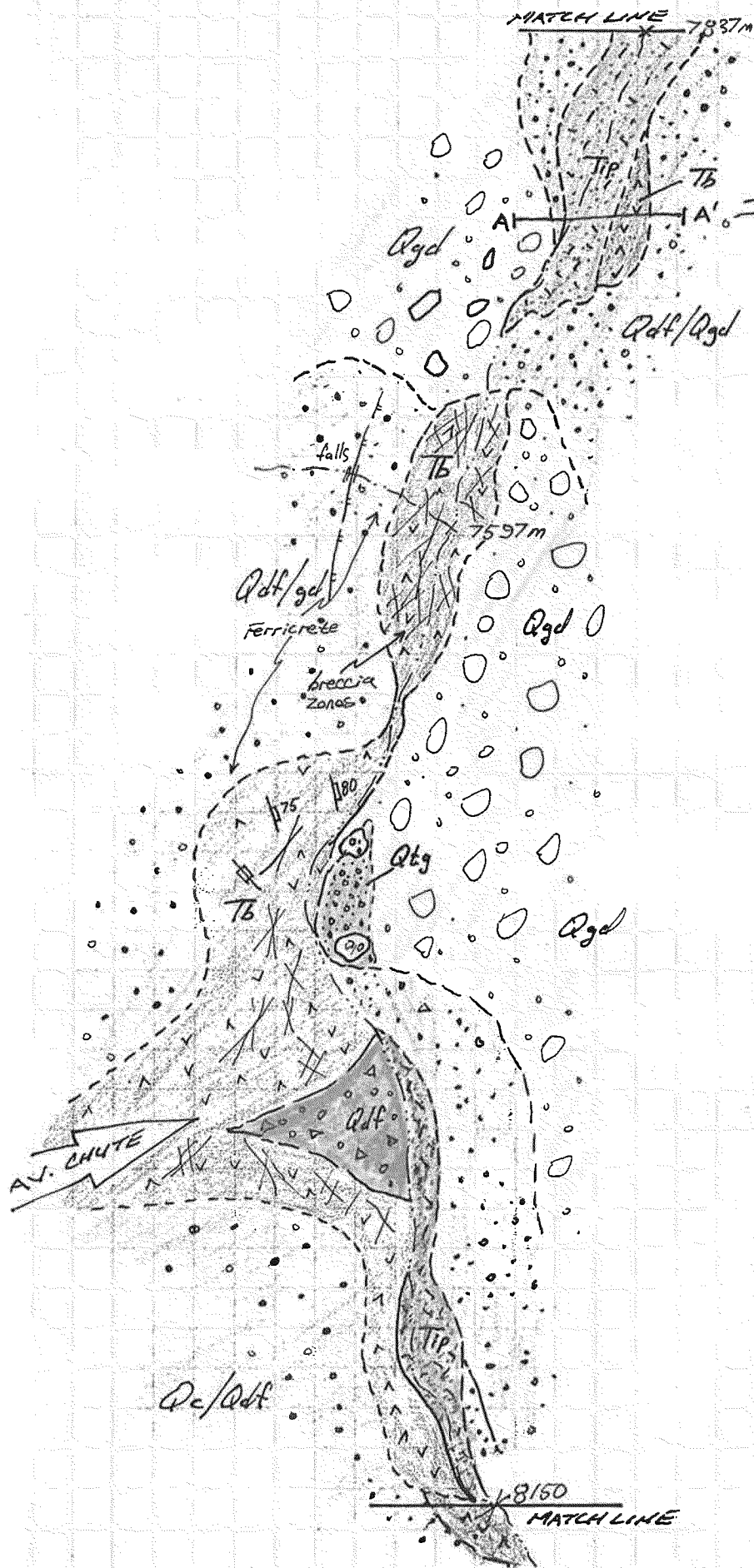


LOWER MINERAL CREEK RECON.  
GEOLOGIC SKETCH MAP  
SHEET 2 of 4 by BK. STOVER  
CDMG SEP-99  
N.T.S. STA. 6710m to 7337m



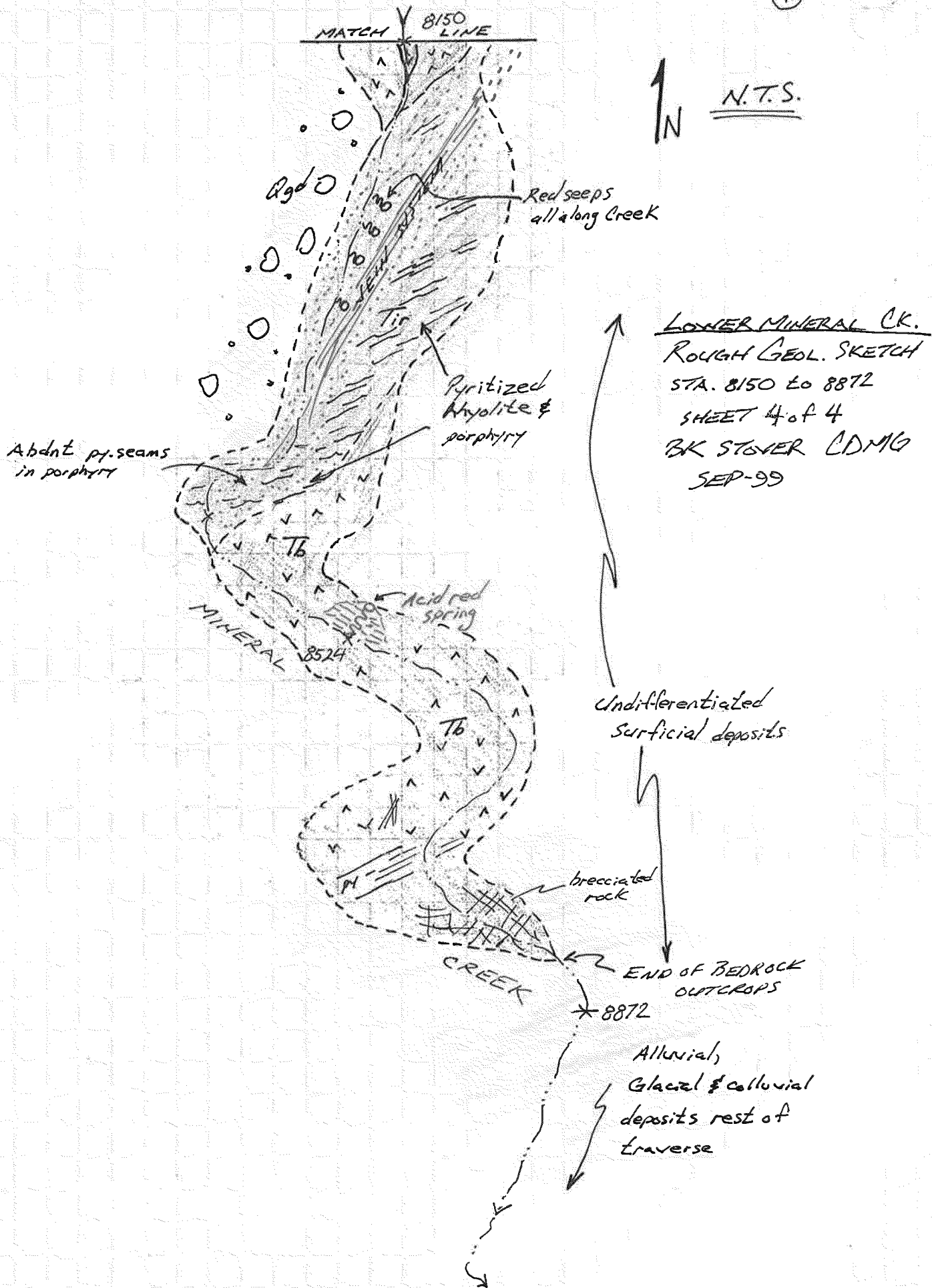
SHEET 2 of 4  
MIDDLE FORK TO 7337m

Tip — Intrusive Porphyry  
outcrop  
intense pyritic alteration  
throughout unit

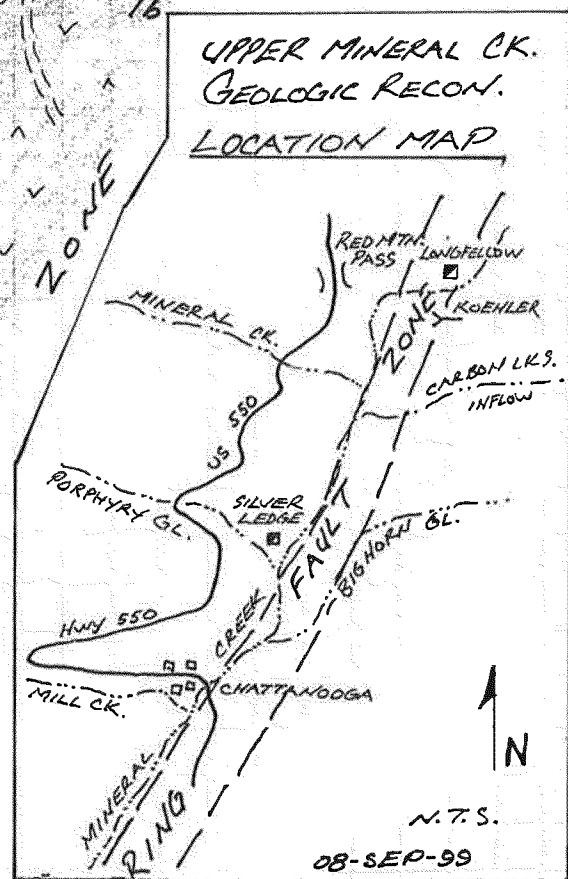
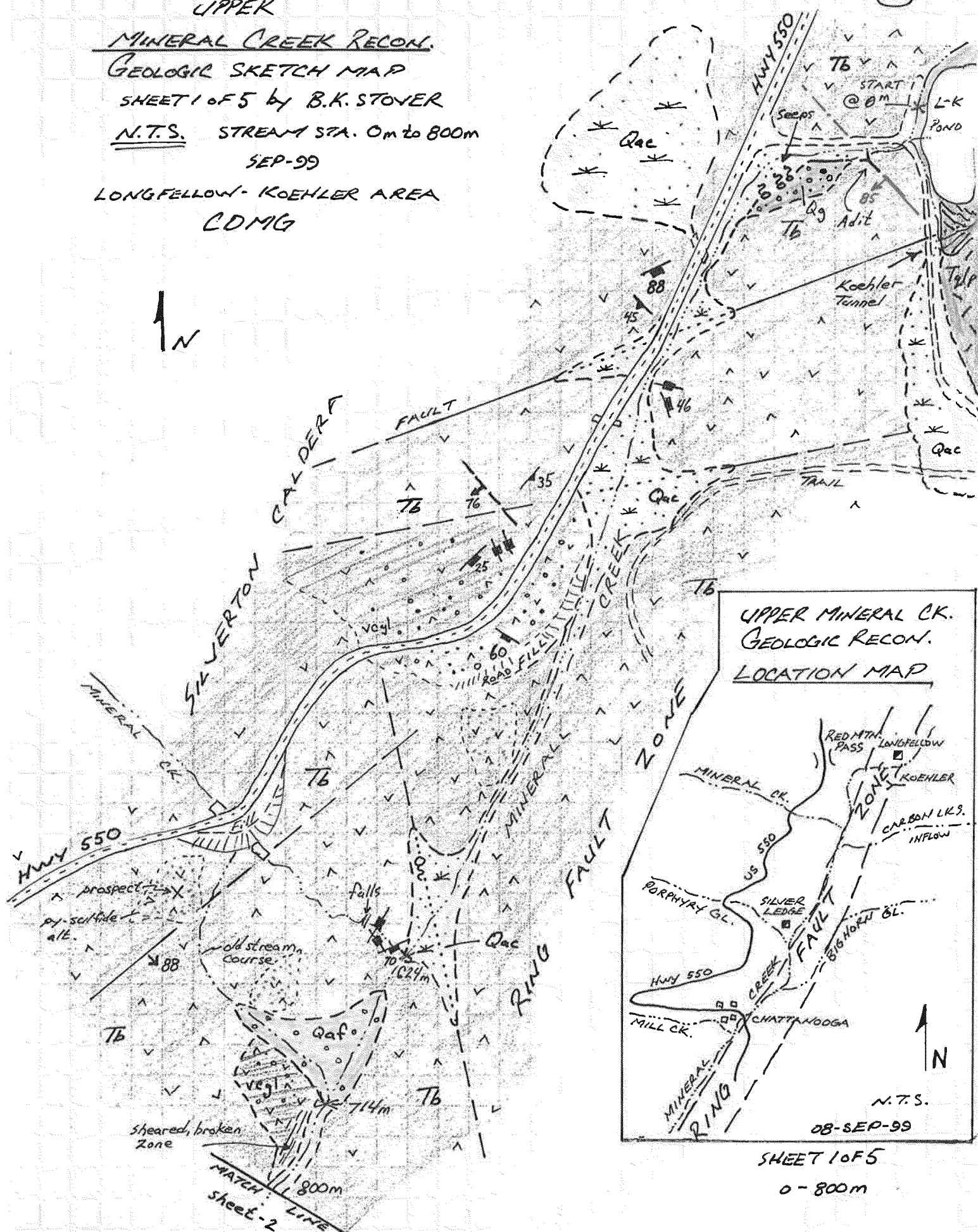


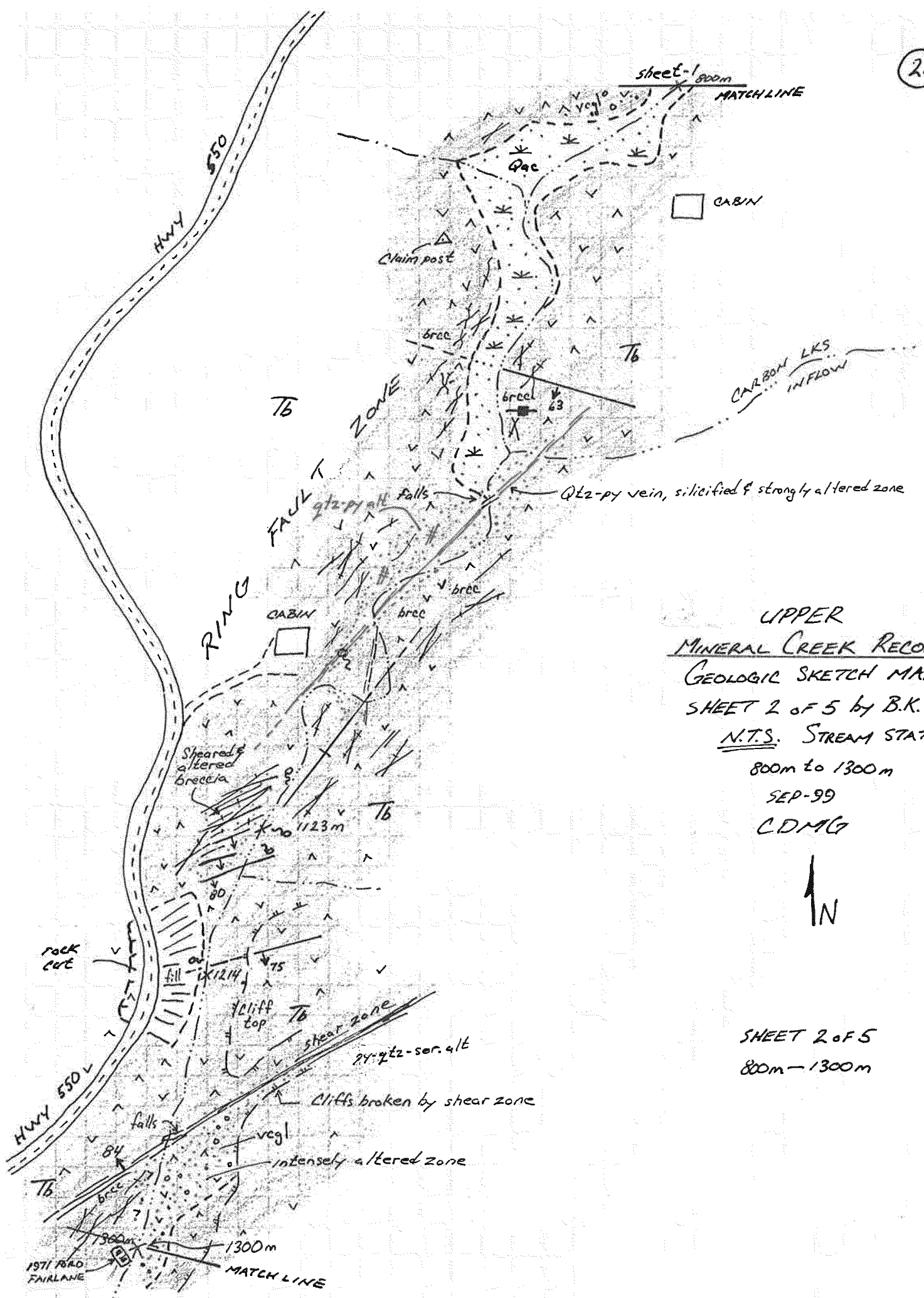
LOWER MINERAL CREEK  
GEOLOGIC SKETCH MAP  
SHEET 3 of 4 N.T.S  
by B.K. STOVER, CDMG  
SEP-99

SHEET 3 of 4  
7837m to 8150m



UPPER  
MINERAL CREEK RECON.  
 GEOLOGIC SKETCH MAP  
 SHEET 1 OF 5 by B.K. STOVER  
N.T.S. STREAM STA. 0m to 800m  
 SEP-99  
 LONGFELLOW-KOEHLER AREA  
 CDMG





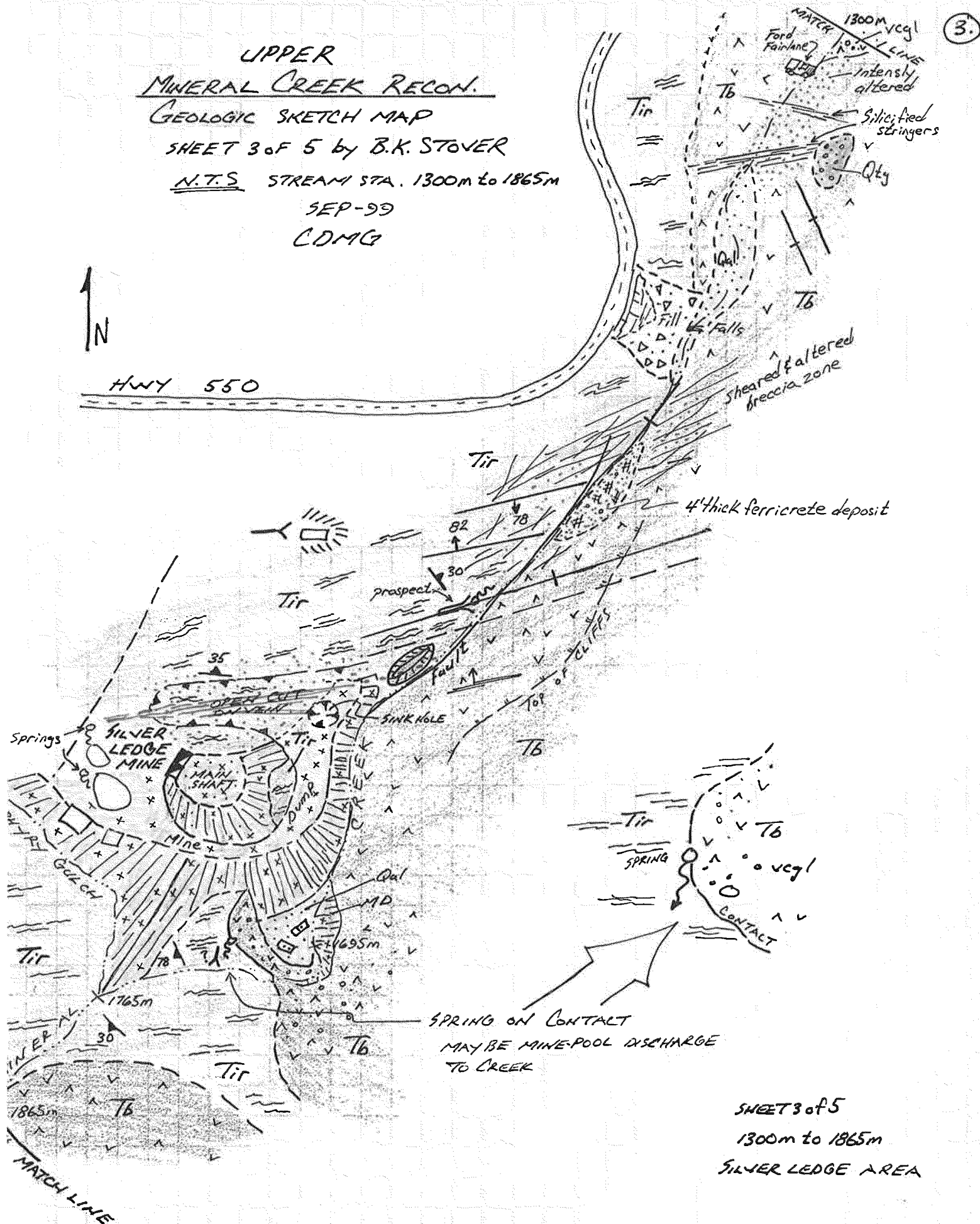
UPPER  
MINERAL CREEK RECON.  
GEOLOGIC SKETCH MAP  
SHEET 2 of 5 by B.K. STOVER  
N.T.S. STREAM STATIONS  
800m to 1300m  
SEP-99  
CDMG

SHEET 2 of 5  
800m - 1300m

COMG

 $1_N$ 

Hwy 550

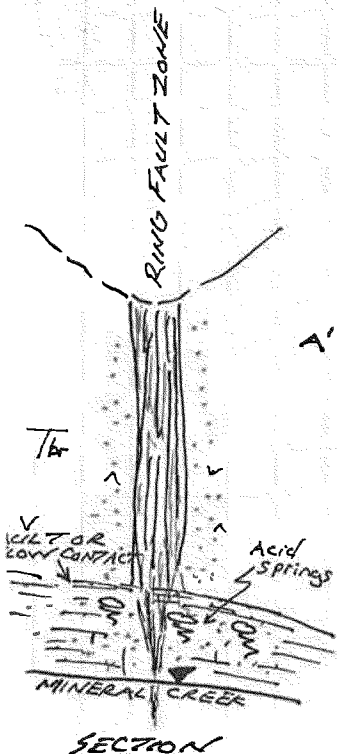


SHEET 3 of 5

1300m to 1865m

SILVER LEDGE AREA



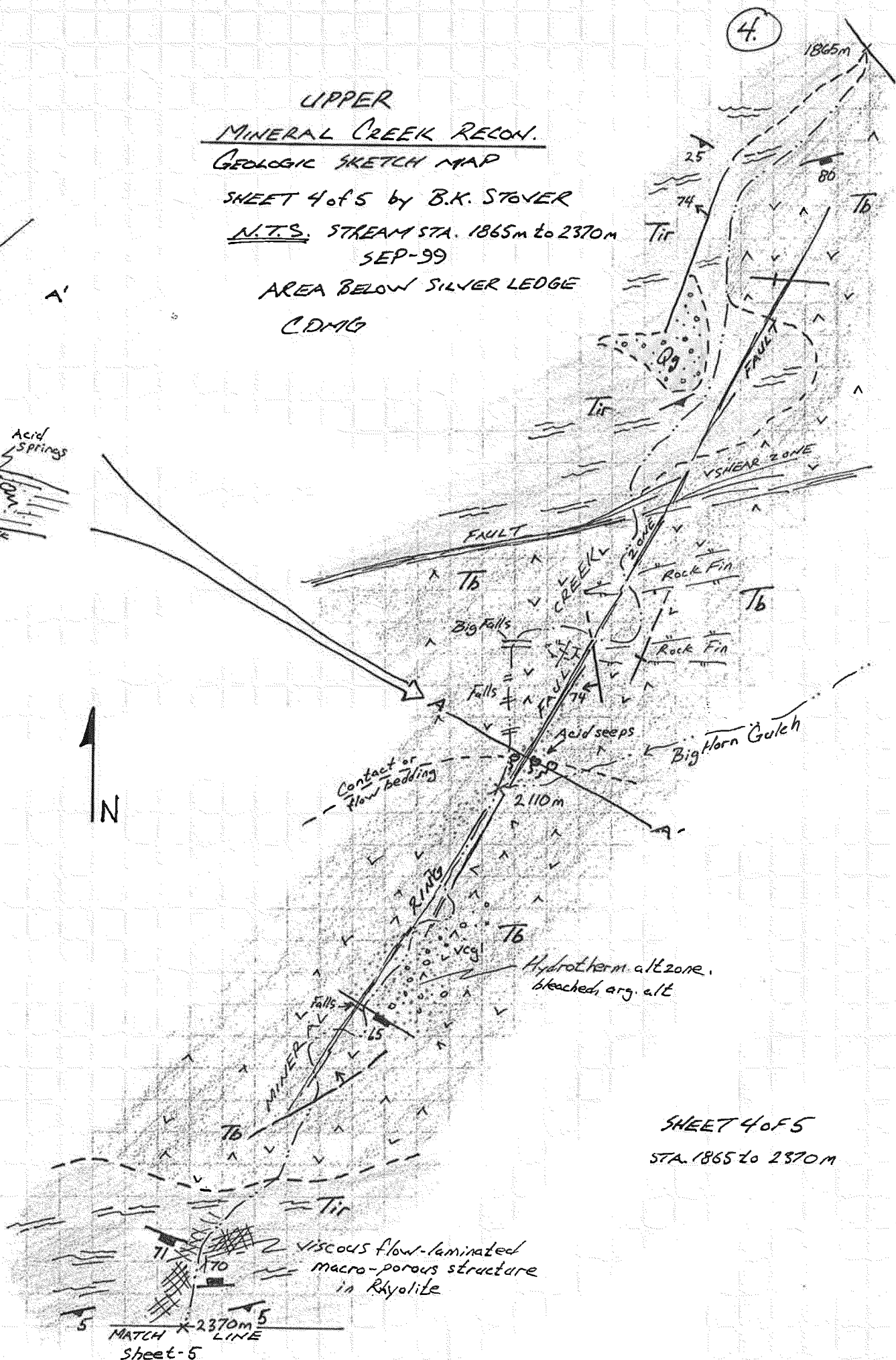


UPPER  
MINERAL CREEK RECON.  
GEOLOGIC SKETCH MAP

SHEET 4 of 5 by B.K. STOVER

N.T.S. STREAM STA. 1865m to 2370m  
SEP-99

AREA BELOW SILVER LEDGE  
CDMG



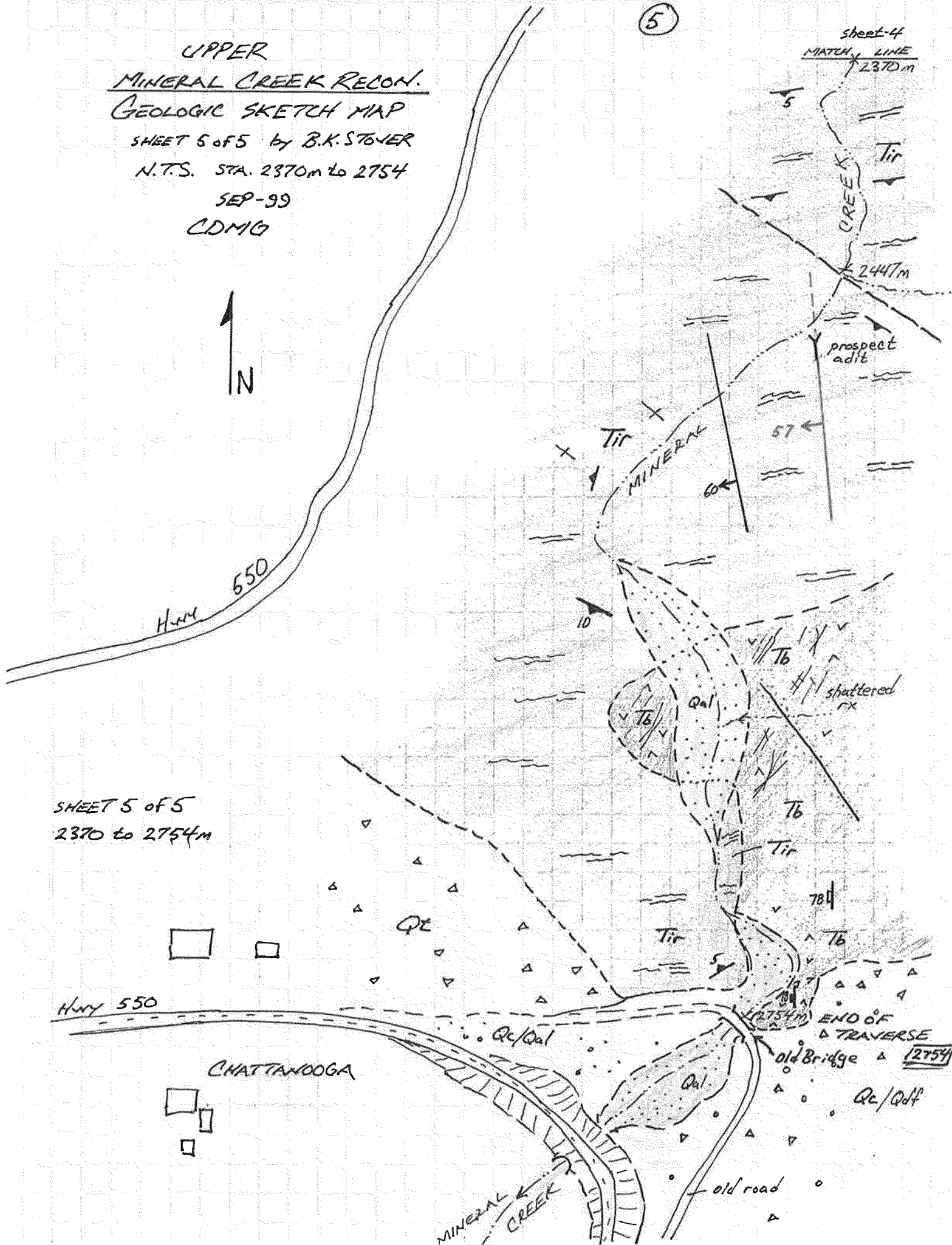
SHEET 4 of 5  
STA. 1865 to 2370m

UPPER  
MINERAL CREEK RECON.  
GEOLOGIC SKETCH MAP  
SHEET 5 of 5 by B.K. STOVER  
N.T.S. STA. 2370m to 2754  
SEP-99  
CDMIG



(5)

Sheet-4  
MATCH LINE  
2370m



SHEET 5 of 5  
2370 to 2754m

Hwy 550

CHATTANOOGA

MINERAL CREEK

END OF TRAVERSE

old Bridge 2754

Qc/Qal